



AIP 8 Update

Joint Distribution & Class V Architectures

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Mr. Pat Kielbasa
USTRANSCOM J6-A
patrick.kielbasa@hq.transcom.mil



Overview

- AA&E Distribution Task and Participants
- Supply-Chain Operations Reference-Model (SCOR) and the Joint Distribution Architecture (JDA)
- Future Architecture Development
- Capabilities-Based Assessment Team (CBAT) IT Focus Areas
- Class V Automated Information Systems (AIS)
- Class V IT Architecture – Proposal
- How do USTRANSCOM Architecture efforts fit into the goals of the AA&E Implementation Plan?



Tasks - AA&E / Distribution

- *Transform DoD's AA&E management, business processes and technology investments from an individual segment view to an end-to-end logistics chain view.*
- Develop a Class V distribution architecture that complies with the DOD Business Enterprise Architecture and DODAF.
- Use the architecture to expedite steps to identify Class V system functionality improvements applied to the ultimate Class V AIS distribution solution.

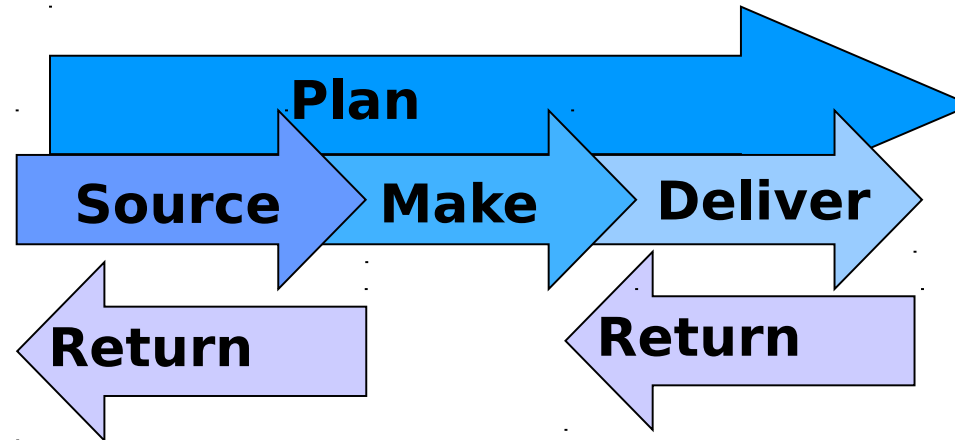


Key Participants

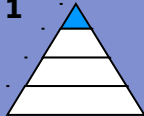
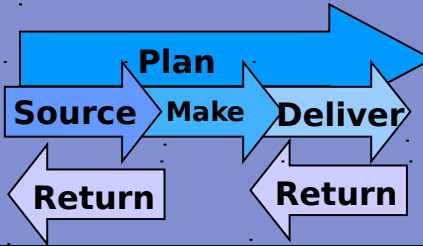
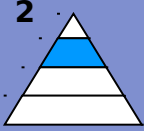
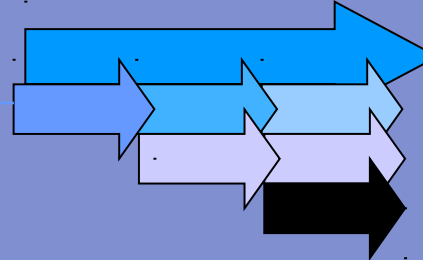
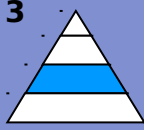
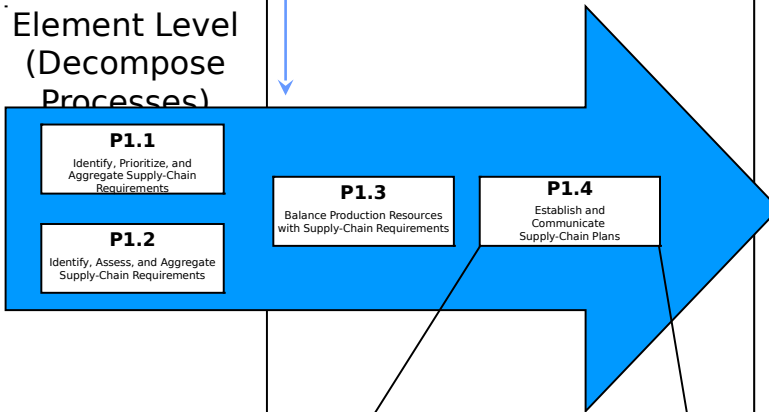

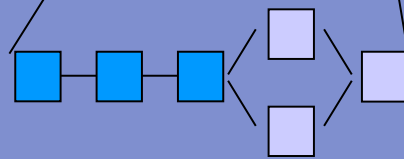
- **OSD (AT&L)** - facilitate Service, COCOM and DLA staff participation during Class V enterprise architecture development.
- **USTRANSCOM** - lead Class V distribution enterprise architecture development efforts as the DPO. Identify distribution system functionality for AA&E within the context of distribution portfolio management and the BEA Log
- **The Military Services** - assist in building Class V distribution enterprise architecture and defining current and future-state Class V system functionality.
- **DLA** - review Class V architecture for consistency with BEA Log architecture
- **The Joint Munitions Command (JMC)** - lead definition and validation of Class V architecture and enabling system functionality as the DoD Single Manager for Conventional Munitions.



Supply-Chain Operations Reference- Model (SCOR)



- **DOD 4140.1R, Supply Chain Material Management Regulation**
 - C1.4.1.1. The DoD Components shall use the supply chain operational reference processes of Plan, Source, Maintain/Make, Deliver, and Return as a framework for developing, improving, and conducting materiel management activities to satisfy customer support requirements developed collaboratively with the support providers

		SCOR Levels of Process			
Level		#	Description	Schematic	Comments
<div>Supply-Chain Operations Reference-model</div> <div>Not in Scope</div>	1		Top Level (Process Types)		Level 1 defines the scope and content for the Supply chain Operations Reference-model. Here basis of competition performance targets are set.
	2		Configuration Level (Process Categories)		A company's supply chain can be "configured-to-order" at Level 2 from core "process categories." Companies implement their operations strategy through the configuration they choose for their supply chain.
	3		Process Element Level (Decompose Processes)		Level 3 defines a company's ability to compete successfully in its chosen markets, and consists of: <ul style="list-style-type: none">• Process element definitions• Process element information inputs, and outputs• Process performance metrics• Best practices, where applicable• System capabilities required to support best practices• Systems/tools Companies "fine tune" their Operations Strategy at Level 3.
	4		Implementation Level (Decompose Process Elements)		Companies implement specific supply-chain management practices at this level. Level 4 defines practices to achieve competitive advantage and to adapt to changing business conditions.



SCOR → JDA Baseline → Class of Supply

- Use of SCOR Directed by DoD
- Guides lower level development (what activities to consider)
- Consistent levels of detail
- Automatic linkage to SCOR through Baseline
- Allows groupings of like activities of different architectures for comparison

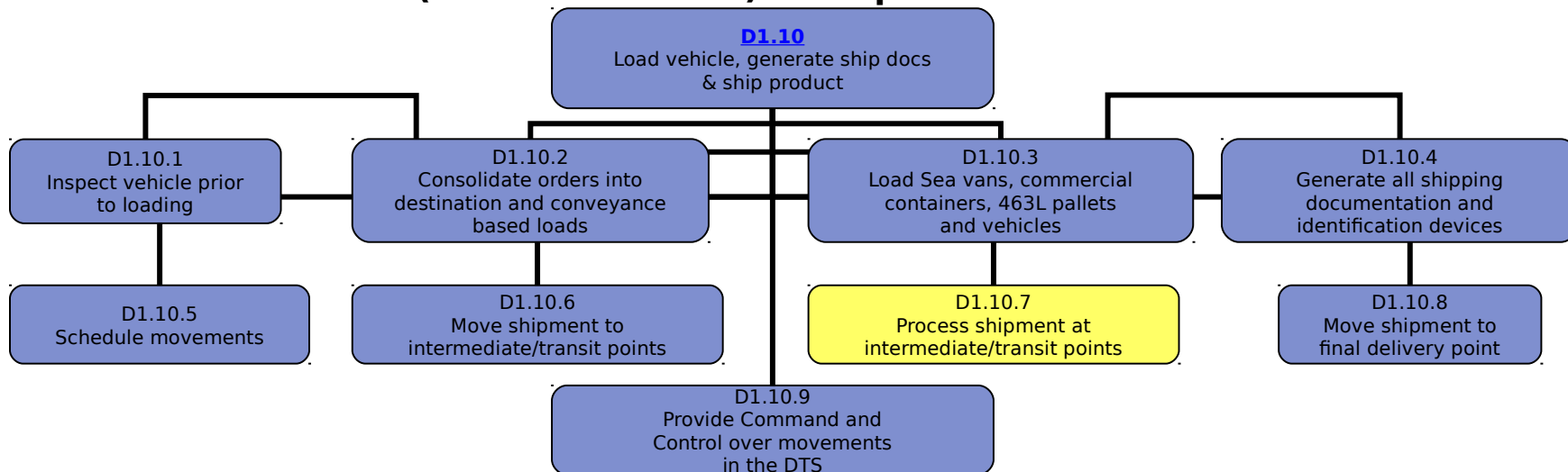
D1.10

Load vehicle, generate ship docs,
verify credit, & ship product

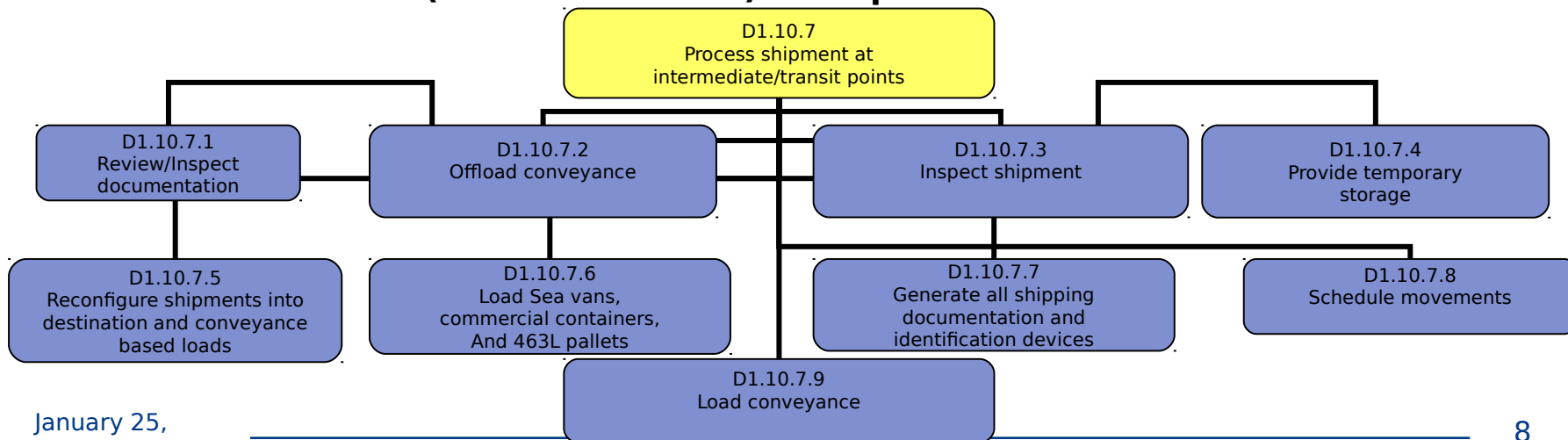


SCOR Level 4 - JDA - Baseline Example

SCOR Level 4- ASP (Distribution Site) Example



SCOR Level 5 - ASP (Distribution Site) Example





Architecture SCOR Level 3 to Class 5

Draft

Supply Chain Operations Reference - Model (SCOR) – Version 6.1 Linkage to Joint Distribution Architecture (JDA)-Class V Highlighted Activities

Draft

Phase Functional Role	Plan																					
	Plan Supply Chain (P1)	Enable Plan (P2)	Source					Plan Make (P3)	Make		Enable Make (P4)	Deliver					Plan Return (P5)	Return				
			Plan Source (P2)	Stocked (S1)	Make-to-Order (S2)	Engineer-to-Order (S3)	Enable Source (S4)		Make To Stock (M1)	Make To Order (M2)		Engineer To Order (M3)	Plan Deliver (P4)	Stocked (D1)	Make-to-Order (D2)	Engineer-to-Order (D3)		Enable Deliver (D4)	Source Return (S5)	Deliver Return (D5)	Enable Return (R1)	
Customer	Generate and Submit Supply Chain Requirements													Receive Supply Chain Requirements					Generate and Submit Return Requirements			
Distribution Management	Identify, Prioritize and Aggregate Supply Chain Requirements	Manage Business Rules	Manage Performance	Identify, Prioritize and Aggregate Product Requirements		Identify Supplier	Manage Supplier Performance	Manage Product Data Collection					Identify, Prioritize and Aggregate Delivery Requirements		Manage Delivery Performance	Assess Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
	Identify, Assess, and Aggregate Supply Chain Requirements	Manage Plan Data Collection	Manage Integrated Inventory	Identify, Assess, and Aggregate Product Requirements		Select Supplier	Manage Inventory Supply Chain	Manage Capital Assets					Identify, Assess, and Aggregate Delivery Requirements		Manage Delivery Performance	Manage Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
	Balance Resources with Requirements	Manage Capital Assets	Manage Planning Coordination	Balance Resources with Requirements		Establish Sourcing Plans	Manage Inventory Supply Chain	Manage Capital Assets					Balance Resources with Requirements		Manage Delivery Performance	Manage Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
	Establish and Communicate Plans	Manage Planning Coordination	Manage Planning Coordination	Establish Sourcing Plans		Establish Sourcing Plans	Manage Inventory Supply Chain	Manage Capital Assets					Establish Delivery Plans		Manage Delivery Performance	Manage Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
Distribution Sites	Identify, Assess, and Aggregate Requirements	Manage Business Rules	Manage Performance	Identify, Assess, and Aggregate Product Requirements		Identify Supplier	Manage Supplier Performance	Manage Product Data Collection					Identify, Assess, and Aggregate Delivery Requirements		Manage Delivery Performance	Assess Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
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Transportation	Identify, Assess, and Aggregate Requirements	Manage Business Rules	Manage Performance	Identify, Assess, and Aggregate Product Requirements		Identify Supplier	Manage Supplier Performance	Manage Product Data Collection					Identify, Assess, and Aggregate Delivery Requirements		Manage Delivery Performance	Assess Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
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Financial	Budget	Align Supply Chain Plan with Financial Plan	Manage Financial Performance	Manage Financial Performance		Manage Financial Performance	Manage Financial Performance	Manage Financial Performance					Manage Financial Performance		Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance
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	Budget	Align Supply Chain Plan with Financial Plan	Manage Financial Performance	Manage Financial Performance		Manage Financial Performance	Manage Financial Performance	Manage Financial Performance					Manage Financial Performance		Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance	Manage Financial Performance
Contributing Functions/Activities	Establish and Communicate Plans	Manage Business Rules	Manage Performance	Identify, Prioritize and Aggregate Product Requirements		Identify Supplier	Manage Supplier Performance	Manage Product Data Collection					Identify, Prioritize and Aggregate Delivery Requirements		Manage Delivery Performance	Assess Delivery Information	Manage Delivery Information	Manage Delivery Information	Identify, Assess, and Aggregate Return Requirements	Manage Return Requirements	Manage Return Requirements	Manage Return Requirements
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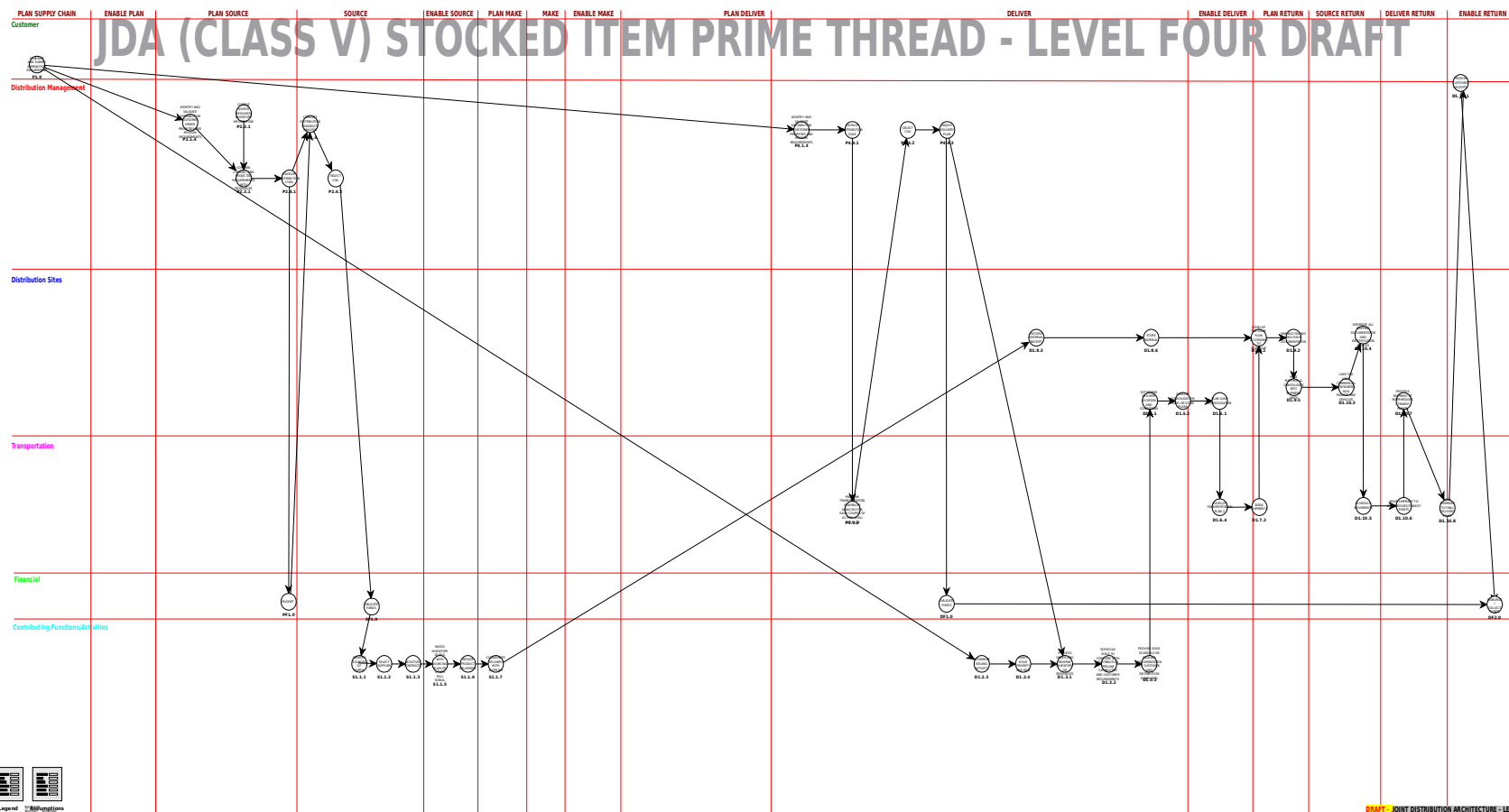
Based upon the requirement in DoD 4140.1-R, Paragraph C1.1.1, dated May 23, 2003, to use SCOR processes for developing, improving and conducting material management activities to satisfy customer support requirements. Depicts SCOR Level 3 Activities stratified by JDA Stakeholders.

Class V Level 3/4/5 Activity Associations

January 5, 2005 (Version 2)



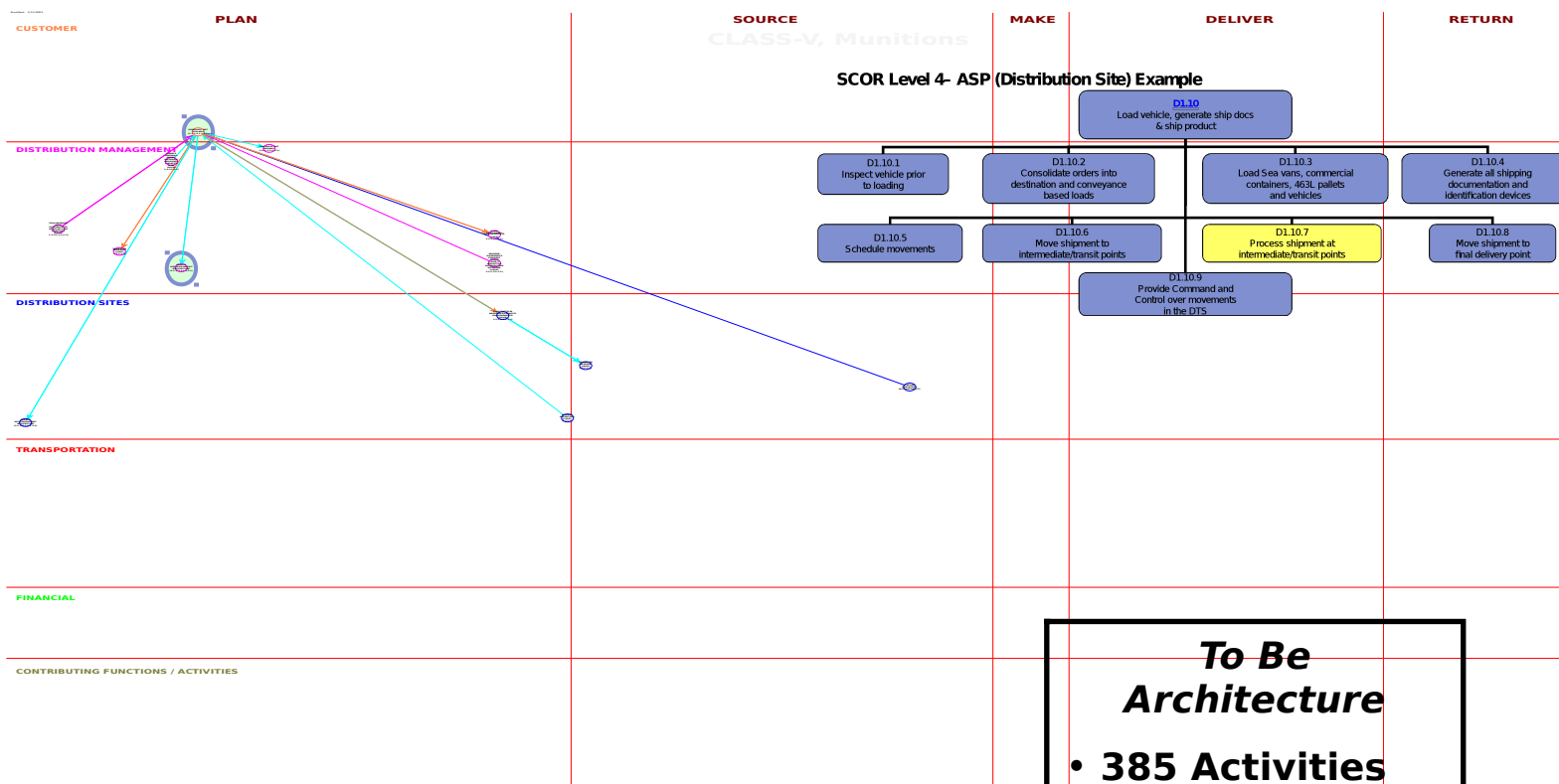
Prime Thread





Relationship of Architecture Views and Data

Sender	Sending Phase	Sending Activity	Sending Activity Description	Product	Product Description	Receiver	Receiving Phase	Receiving Activity	Receiving Activity Description
Customer	PLAN	GENERATE NET DEMAND (1.1.1.2.1.1.1.3)	(COLLABORATIVE) - CREATION OF A SHORT-TERM NET REQUIREMENTS PLAN FOR MATERIALS/RESOURCES THAT IS NEEDED TO FULFILL SHORT-TERM DEMAND.	INVENTORY NET REQUIREMENT BALANCE	THE REQUIRED INVENTORY QUANTITY NECESSARY TO MEET DEMAND BY DATE, BY NSN/DODIC/ DODAC	Distribution Management	PLAN	CREATE REPLENISHMENT REQUISITION (1.1.1.2.1.1.1.3.1)	EXECUTE THE SHORT-TERM MATERIAL/RESOURCE PLAN

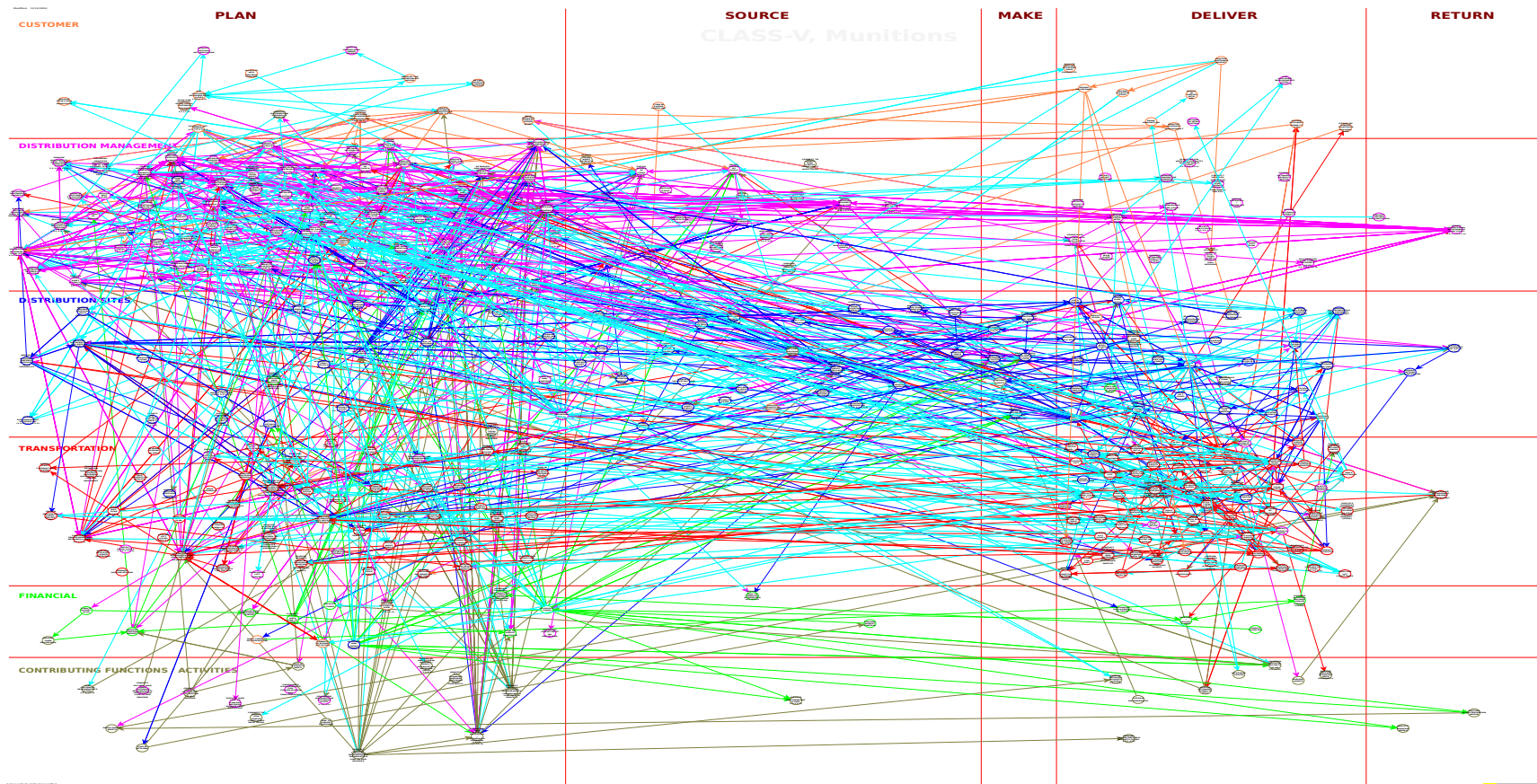


**To Be
Architecture**

- 385 Activities
- 209 Products
- 1338



Class-V Interim “To-Be”





Future Architecture Development Activities



- JDA Level 4 – Potentially the right level for developing an operational architecture for the DPO
 - Class V activities decomposed to level 4 as a minimum
 - System development will require operational activity decomposition to Level 5 and below to enable operational activities
- Continue associating systems with operational views for Class V
 - Relationship between the operational activities and system functions (SV-5)



CBAT Recommended IT Improvement Focus



Key Functionality:

- Visibility—you can only optimize what you can see
- Collaboration—each Service capable in and of itself, but no shared environment
- Automation—key data objects need to flow from planning to execution without reentry



CBAT Defined Key Data Objects



- Class V Architecture has to be able to support 4 key data formats with as much automated interface as possible:
 - Requisitions
 - Transportation Control Numbers (TCN)
 - Transportation Control and Movement Documents (TCMD)-to include ATCMDs
 - Unit Line Numbers (ULN)



AIS Supporting Class V

- **Identified automated systems that support class V distribution**
 - **Original list of 41 narrowed to ~24**
 - **Reviewed 24 systems to ascertain what capabilities currently exist to fill gaps**
 - **Many of the capabilities desired by CBAT exist in current systems**

USA

MTMS

NLAC

RFID/AIT

SAAS-MOD

TAMIS-R

JMPS

LMP

TC-AIMS II

USTC

DTTS

GATES

GFM

GTN-21

IBS

WPS

JFAST

AT21

USAF

CAS

CMOS

LOGMOD

USN

OIS

Joint

JOPES

CFAST

JTAV

USMC

ULAS



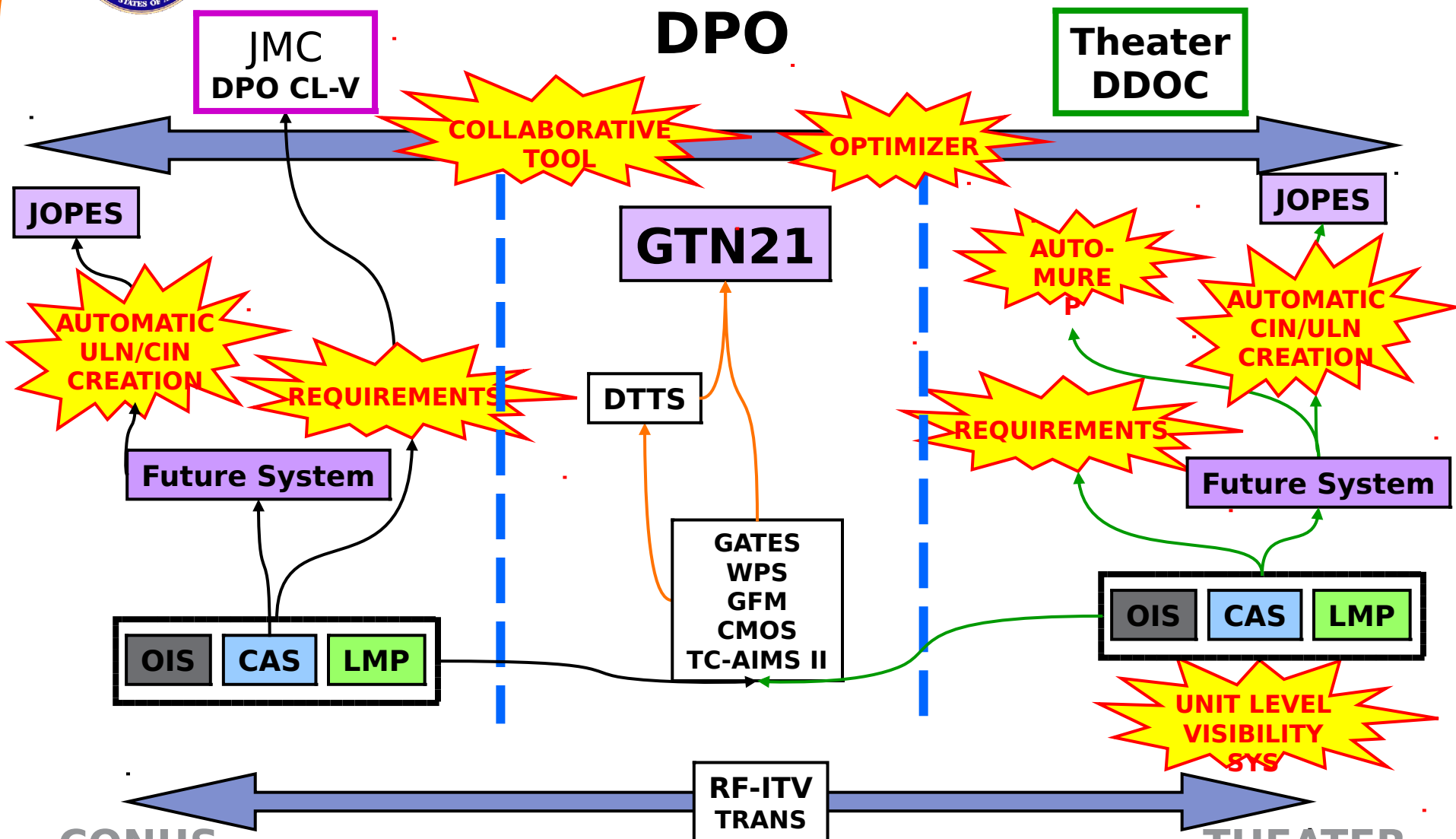
Class V System Functionality Matrix

CLASS V END-TO-END DISTRIBUTION

	Strategic										Operational										Tactical	Ops	Strategic																																																																																																																																																																																																																																																																																																																																							
S=System M=Manual		Procurement	Unit Movement & Sustainment															Theater Cross-Leveling	Using Unit	Retrograde																																																																																																																																																																																																																																																																																																																																										
			Planning			Execution				Ship to POE	POE Activities		Ship to POD	POD Activities (RSOI)			Ship to ASP			Planning	Ship to CONUS/OC ONUS POD																																																																																																																																																																																																																																																																																																																																									
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SYSTEMS	Requirement	Funding	Contracting	Product Acceptance	POT	M-Visualization	POD	POD	Special Instructions	Convoyance Staging	Asset Repositioning	Workload	Visibility	Trans-Feasibility	Sourcing	Disburse	On-Hand Balance	Requisitions	Sourcing	Dis-Off	M-Command	T-Command	T-Command	C-Info Selection	Booking	Scheduling	UP Asset	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning	Lead Planning

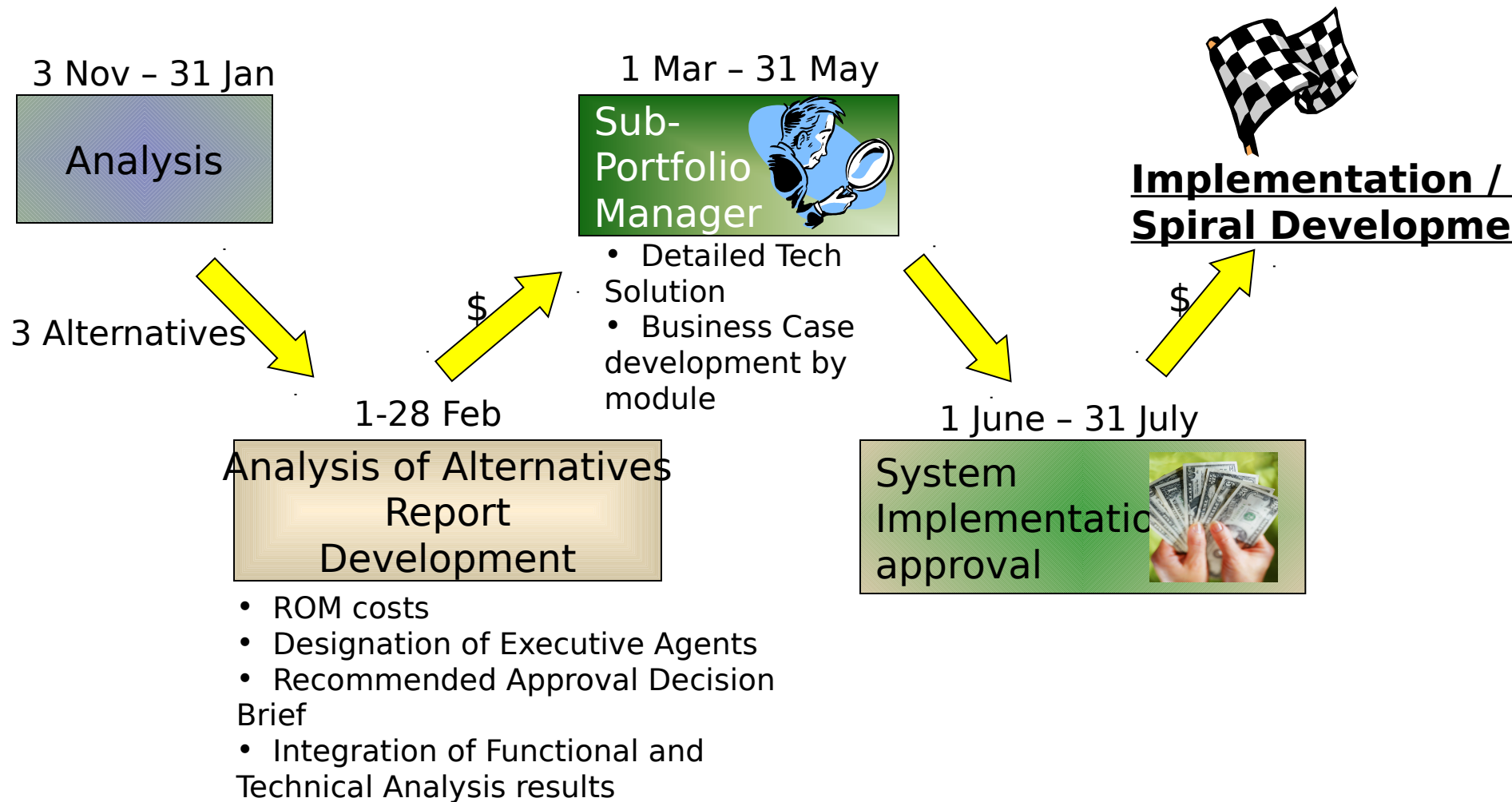


Potential DPO Class V IT Architecture





Possible Way Ahead For Class V IT





AIP 8 Takeaway

- Completed Class V As-Is and To-Be Operational Architectures Using:
 - DPO context
 - SCOR Model v.6.1
 - DOD Architecture Framework
- Examined Existing Class V Systems Capabilities:
 - Identified Key Data Objects
 - Developing system architecture alternatives